

**BY ORDER OF THE COMMANDER
482D FIGHTER WING**

482d FIGHTER WING INSTRUCTION 21-103

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Maintenance

HOT BRAKE PROCEDURES

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This Fighter Wing Instruction incorporates procedures from Air Force Instruction (AFI) 21-101 Air Force Reserve Command Supplement 1 (AFRC Sup), *Aircraft and Equipment Maintenance Management*, AFI 32-2001, *The Fire Protection and Fire Prevention Program*, Technical Order (TO) 4B-1-1, *Use of Landing Wheel Brakes and Wheels During Ground Operation*, TO 1F-16C-1CL-1, *Flight Crew Checklist*, TO 1F-16C-2-00GV-00-1, *General Vehicle Organizational Maintenance* and TO 1F-16C-6WC-1-11, *Combined Preflight/Postflight, End-of-Runway, Thruflight, Launch and Recovery Inspection Work Cards*. It assigns responsibilities, directs action and prescribes Hot Brake procedures within the 482d Fighter Wing (482 FW) and its subordinate functions and establishes responsibilities, standardized procedures and locations for the 482d Maintenance Group (482 MXG). Commanders and supervisors are responsible for ensuring personnel comply with the provisions of this instruction. It applies to all personnel assigned to the 482 FW. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force Form 847 (AF Form 847), *Recommendation for Change of Publication*; route AF Form 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records* and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.mv.af.mil/gcss-af61a/afrims/afrims/rims.cfm>.

SUMMARY OF CHANGES

This instruction has been revised and must be reviewed in its entirety.

1. General:

1.1. The three hot brake areas established at Homestead Air Reserve Base (HARB) are located at:

1.1.1. Runway 23 end of runway (EOR), Spot 8.

1.1.2. Runway 05 EOR, Spot 8.

1.1.3. Hot Cargo Pad.

1.2. The areas located at each end of the runway are appropriate for aborted take-offs or heavyweight landings where hot brakes are likely.

1.2.1. Every effort should be made to park any aircraft with suspected hot brakes, facing into the wind at one of the three designated hot brake areas.

1.2.1.1. It is generally recognized that excessive taxiing with hot brakes will create a more serious and potentially dangerous situation.

1.2.1.2. Anytime a ground emergency for hot brakes is declared in a de-arm area, the de-arm operations for the rest of the aircraft is moved from taxiways Alpha or Echo End of Runway (EOR's) to Bravo or Delta until the emergency is terminated.

Caution: At no time is a mechanical/digital device utilized to determine brake temperature.

2. Not Used.

3. Procedures.

3.1. Ground Crew Procedures:

3.1.1. **Warning:** DO NOT APPROACH TIRES, if a suspected hot brake condition exists. Refer to TO 1F-16C-6WC-1-11.

3.1.2. Notify the pilot of a hot brake condition/alert using the hot brake hand signal and **STAY CLEAR OF THE AIRCRAFT.**

3.1.3. If possible, use the Maintenance Net on a Land Mobile Radio, (LMR) to alert the 482 MXG/Maintenance Operations Center (482 MXG/MOC) to call the 482d Mission Support Group/Fire Department (482 MSG/CEF).

3.1.4. The area will be cleared of non-essential personnel for a minimum of 300ft in all directions.

3.1.5. Avoid inflated Main Landing Gear (MLG) tire side area within 300 feet for 45 minutes after aircraft has stopped.

3.1.6. If required, approach from the front or rear for firefighting purposes only.

3.1.7. After the ground emergency is terminated by the Fire Chief and waiting at least 45 minutes from the time the aircraft has stopped, secure the aircraft and tow it to the appropriate parking location.

3.2. Pilot Procedures:

3.2.1. Suspected hot brakes immediately after landing: Accomplish Hot Brake procedures IAW TO 1F-16C-1CL-1.

3.2.1.1. If the pilot suspects that hot brakes are likely due to variables, such as landing heavy, a short runway or higher speeds, the aircraft should be taxied into Spot 8 in the EOR. The aircraft nose should be into the wind and firefighting equipment requested, as soon as possible. Do not shut the engine down until instructed by the 482 MSG/CEF due to a potential fuel fire hazard.

3.2.1.2. Do not use the parking brake. Use only minimal brake pressure to hold aircraft stationary.

3.2.1.3. Turn the Emergency Power Unit (EPU) switch to the **OFF** position.

3.2.1.4. When directed by the Fire Chief, place the throttle in off. **Caution:** DO NOT TURN OFF MAIN POWER UNTIL AFTER THE NOSE WHEEL HAS BEEN CHOCKED. ONCE THE MAIN POWER SWITCH IS TURNED OFF, THE BRAKES WILL BE INOPERATIVE.

3.2.1.5. Once 482 MSG/CEF chocks the nose wheel, turn the main power switch to off and exit the aircraft towards the front of the aircraft. If a brake fire occurs, perform a ground egress in accordance with TO 1F-16C-1CL-1. **Warning:** Ensure engine has stopped rotating before chocking nose wheel.

3.2.2. Hot brakes discovered at EOR by de-arm personnel:

3.2.2.1. If advised by de-arm personnel of a hot brake condition and if able, taxi to Spot 8 in the EOR. Do not use the parking brake. Use only minimal brake pressure to hold aircraft stationary. Keep the engine running, immediately call Homestead Ground Control and declare a ground emergency for hot brakes.

3.2.2.2. Await the Fire Chief's directions and accomplish procedures in paragraphs 3.2.1.1 through 3.2.1.5, above. The de-arm operation for the rest of the aircraft will be moved from taxiways Alpha or Echo EOR's to Bravo or Delta until the emergency is terminated.

3.2.3. Hot Brakes discovered at the MAKO Parking Ramp:

3.2.3.1. If notified by maintenance personnel of a hot brake condition at the MAKO parking ramp, contact Homestead Ground Control immediately and declare a ground emergency for hot brakes.

3.2.3.2. Taxi to the Hot Cargo Pad, if possible, or as far away as possible from other parked aircraft, personnel or other resources. Use only minimal braking pressure to stop aircraft and do not use the parking brake. Point the nose of the aircraft into the wind, if possible.

3.2.3.3. Once the aircraft is parked, keep the engine running, await the Fire Chief's directions and accomplish procedures in paragraphs 3.2.1.1 through 3.2.1.5, above.

3.3. 482 MXG/MOC Procedures:

3.3.1. Upon notification of a hot brake condition, MOC notifies the following:

3.3.1.1. Notify MXG and base agencies per Hot Brake checklist E-21 and Ground Emergency checklist E-02.

3.4. Crash Recovery Procedures:

3.4.1. A maintenance supervisor (Officer In Charge (OIC), Noncommissioned Officer In Charge (NCOIC), Pro-Super, Aircraft Generation Flight Chief, or Expediter) immediately responds to the Fire Chief or his assistant at the hot brake ground emergency location for instructions. Depending on the location of the emergency, it may become necessary to move other aircraft or resources away from the emergency area.

3.4.2. Avoid inflated MLG tire side area within 300 feet for 45 minutes after aircraft has stopped.

3.4.3. After the ground emergency is terminated by the Fire Chief and waiting at least 45 minutes from the time the aircraft has stopped, secure the aircraft and tow it to the appropriate parking location.

3.4.4. 482 MSG/CEF may provide an escort vehicle to follow the aircraft back to the parking area.

DONALD R. LINDBERG, Colonel, USAFR
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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 26 July 2010

AFI 21-101, AFRC SUP 1, *Aircraft and Equipment Maintenance Management*, 13 January 2011

AFI 32-2001, *Fire Protection and Fire Prevention Program*, 9 September 2008

T.O. 1F-16C-2-00GV-00-1, *General Vehicle Organizational Maintenance*, 1 May 2011

T.O.1F-16C-1CL-1, *Flight Crew Checklist*, 4 January 1999

TO 1F-16C-6WC-1-11, *Combined Preflight/Postflight, End-of-Runway, Thruflight, Launch and Recovery Inspection Work Cards*, 1 July 2011

TO 4B-1-1, *Use of Landing Wheel Brakes and Wheels During Ground Operation*,

Adopted Forms

AF Form 673, *Air Force Publication/Form Action Request*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instructions

AFMAN—Air Force Manual

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order

AMXS/CC—Aircraft Maintenance Squadron Commander

CC—Commander

CD—Deputy Commander

EPU—Emergency Power Unit

EOR—End of Runway

e-Publishing—the e-publishing website (www.e-publishing.af.mil)

FW—Fighter Wing

FWI—Fighter Wing Instruction

IAW—In Accordance With

LMR—Land Mobile radio

MLG—Main Landing Gear

MOC—Maintenance Operations Center
MXG—Maintenance Group
MXG/CC—Maintenance Group Commander
MXQ—Maintenance Group Quality Assurance Office
MXS/CC—Maintenance Squadron Commander
OIC—Officer In-Charge
OPR—Office of Primary Responsibility
NCOIC—Non-Commissioned Officer In-Charge
POC—Point of Contact
QA—Quality Assurance
RDS—Records Disposition Schedule
SUP—Supplement
SOF—Supervisor of Flying
TO—Technical Order
USAF—United States Air Force